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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,691	10/03/2003	Christian Mueller	ITC-338US	9956

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EXAMINER

HOLLINGTON, JERMELE M

ART UNIT	PAPER NUMBER
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2829

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/678,691

Applicant(s)

MUELLER, CHRISTIAN

Examiner

Jermele M. Hollington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 10-17, 19-21, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 7, 9, 18 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 8, 10-17, and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kerschner et al (4993136).

Regarding claims 1 and 12, Kerschner et al disclose an apparatus for establishing a distance between a test head having test head electrical contacts and a peripheral having peripheral electrical contacts, comprising a plurality of alignment features (12 and 14 see col. 5, lines 31-33) which are coupled to one of said test head and said peripheral (11); and a plurality of linear units (16) coupled to the other of said test head and said peripheral (11) for causing movement of at least one of respective docking surfaces of said test head and said peripheral (11) towards and away from each other (see col. 7, lines 28-50), an actuating member (combination of 20, 20a, 19 and 18) which, when actuated causes actuation of said plurality of linear units (16) to cause said movement of said respective docking surfaces, said alignment features (12 and 14) and said linear units (16) preventing said test head and said peripheral (11) from being closer to each other than a docked distance, wherein, at said docked distance, said

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test head electrical contacts and said peripheral electrical contacts are in contact with each other (see col. 5, lines 56-66 wherein the test head is inherently designed to communicate with a probe plate); and a sliding unit (combination of 22 and 24) for a) changing position of said linear units (16) relative to said other of said test head and said peripheral (11) or b) changing position of said alignment features (12 and 14) relative to said one of said test head and said peripheral (11) in order to change said docked distance.

Regarding claims 2 and 13, Kerschner et al disclose having one of the test head and the peripheral (11) coupled to said alignment features (12 and 14) for docking the one of the test head and the peripheral (11) with the other of the test head and peripheral (11) [the combination of assemblies 12, 14, 40 and 42 provide alignment features for docking the test head and the peripheral].

Regarding claims 3 and 14, Kerschner et al disclose having one of said linear units including one of a male (16) and female (18) threaded member attached to the other of the test head and peripheral (11).

Regarding claims 4 and 15, Kerschner et al disclose having one of said alignment features (12 and 14) included the other of the male (16) and the female member (17) threaded member.

Regarding claims 5 and 16, Kerschner et al disclose having one of the male (16) and female (17 or 18) threaded member rotated in order to move the alignment feature (12 and 14) towards or away from the docking surface of the other of the test head and the peripheral (11) [see col. 7, line 39-50].

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Regarding claims 6 and 17, Kerschner et al disclose having the other of the male (16) and female (17 or 18) member rotated in order to move the alignment feature (12 and 14) towards or away from the docking surface of the other of the test head and the peripheral (11) (inherent to the dynamic relationship between members 16 and 17).

Regarding claims 8 and 19, Kerschner et al disclose having the linear unit (16) as one of a plurality of linear units to move the alignment feature (12 and 14) (note plurality of linear units 16 shown in Figure 1).

Regarding claims 10 and 20, Kerschner et al disclose having a crank (20a) rotated to cause the plurality of linear units to move the alignment feature (12 and 14).

Regarding claims 11 and 21, Kerschner et al disclose the docking surface (probe plates 40 and 42) between the alignment feature (12 and 14) and one of the test head and the peripheral (11).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerschner et al (4993136) in view of Miller (6218910).

Regarding claims 23 and 24, Kerschner et al disclose having a guide (22 and 24) coupled to the other of the test head and the peripheral (11), the guide (22 and 24) and the alignment features (12 and 14) separated prior to the movement of at least one of the docking surfaces, the

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guide (22 and 24) engaging the alignment features (12 and 14) at said distance (see col. 10, line 21-35). Although Kerschner et al does not explicitly describe the test head having test head electrical contacts, a peripheral having peripheral electrical contacts wherein the test head electrical contacts and the peripheral electrical contacts are in contact with each other. Miller shows a test head (20) having test head electrical contacts (30), a peripheral (22) having peripheral electrical contacts (probe card must have contacts to electrically communicate with the test head 20 because Miller describes the electrical relationship between the test head and a device under test via the probe card; also note "points of contact on its upper surface for the pogo pin connectors 30," see col. 5, line 25-39) wherein the test head electrical contacts and the peripheral electrical contacts are in contact with each other. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have combined the teaching of Miller with that of Kerschner et al to make the claimed invention because providing enhancements for reliable electrical contact between a test head and a probe card using minimal wire lengths between test electronics and the device under test is a desirable attribute when testing highly complex, compact circuits at the fastest possible rates resulting in improvements in reliability combined with efficiency.

Conclusion

Allowable Subject Matter

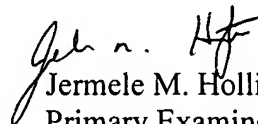
6. Claims 7, 9 and 18 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (571) 272-1960. The examiner can normally be reached on M-F (9:00-4:00 EST) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha Nguyen can be reached on (571) 272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jermele M. Hollington
Primary Examiner
Art Unit 2829

JMH
December 19, 2006